

# HINTS

ADDRESSED

TO THE

FARMERS OF ESSEX.

*By H. C.*



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# HINTS

ADDRESSED TO THE

## FARMERS OF ESSEX COUNTY.

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WHATEVER may be said of other countries and climes, the inhabitants of Essex County have no just reason to complain of the location which Providence has assigned them. Whoever traverses this County will see perhaps as few marks of poverty as in any parts of the country, which have been as long settled, and fewer than in many parts, whose settlement has been more recent. If he does not find many examples of great wealth, especially in our rural establishments, he may observe numerous indications of thrift, comfort, and substantial independence, and the reasonable rewards of enterprise, perseverance, frugality, and industry. The general aspect of the County is diversified and broken, and on that account favorable to health. On a comparison of the bills of mortality in those places, where they have been so kept that this comparison could be properly made, as in Ipswich for example with Breslaw in Europe,\* a place deemed the most healthy on the continent, the result was greatly in favor of the longevity of this County. We should not know where to look for a population more respectable for its general intelligence, public order, and good morals. These are eminent blessings, and should produce grateful contentment and a rational use of our advantages.

We have no extraordinary fertility of soil; no rich alluvion; no deep intervale on the borders of the streams by which the County is watered. We have little sandy land, but a great deal of a thin, hungry, gravelly surface, and a considerable extent, in scattered parcels, of low and wet swamps abounding with peat and capable of being drained and converted into productive meadow, at an expense,

\* Memoirs of American Academy, Vol. I., p 565.



if well managed, which may be fully remunerated by two or three of the first crops. Besides this, we have considerable quantities of superior land; a good soil resting upon a clay or hard pan and retentive of the manure which is put upon it. Our bogs and swamps in the interior of the County furnish abundant means of increasing our manure and enriching our uplands; and as a large part of the County is washed by the sea, the grounds in its vicinity are benefitted by the saline atmosphere; and the means of greatly increasing their fertility by muscle bed and sea-wreck are within our reach. Of these advantages many of the farmers in the neighborhood of the ocean avail themselves, and the products of some of the farms in the County, both in the interior and on the sea-board, are highly creditable to their industrious and intelligent cultivators.

We have authentic statements, by which it appears that the following amount of crops have been raised at different times in different parts of this County:—

Of Wheat—24 bushels, and 26 bushels to the acre.\*

Of Indian Corn—70 bushels; 72 bushels;  $71\frac{1}{2}$  bushels;  $90\frac{1}{2}$  bushels;  $93\frac{3}{4}$  bushels; 105 bushels 6 quarts; 110 bushels;  $113\frac{1}{2}$  bushels; 115 bushels;  $117\frac{1}{4}$  bushels.†

Of Barley—50 bushels;  $51\frac{1}{2}$  bushels; 52 bushels and 18 qts.

Of Potatoes—518½ bushels.

Of Carrots—849 bushels; 864 bushels; and 878 bushels, at 56 lbs. per bushel; and 900 bushels.

Of Mangel Wurtzel—924 bushels; and 1340 bushels to an acre, at 56 lbs. per bushel.

Of Ruta Baga—688 bushels.

Of Beets—783 bushels.

Of English Turnips—636 bushels; 687 bushels; 672 bushels; 751 bushels; 814 bushels.

Of Onions—651 bushels.‡

We know of a lot of six acres from which thirty tons of Hay, actually weighed, were gathered in one season; and another field of about forty acres, from which, according to the statement of respect-

\* The average produce of wheat and rye in Great Britain is 18 bushels to the acre. See Armstrong's Treatise on Agriculture, p. 31.

† Mr. Burnham's crop of  $117\frac{1}{4}$  bushels was rated at 50 lbs. to a bushel. Messrs. Little's of 115 bushels at 56 lbs. to a bushel. Rating Messrs. Little's crop at 50 lbs. per bushel, it would be equal to 134 bushels to the acre.

‡ The above statements are to be found in the Memoirs of the Massachusetts Agricultural Society, and the Reports of the Essex Agricultural Society.

able and disinterested individuals, the yearly crops have averaged more than one hundred and twenty tons, or three tons to an acre. We can point to a small dairy establishment,\* the produce of which, when all circumstances are considered, is probably not surpassed in the State, where seven of our native cows, with no extra feed whatever, have averaged a yield of 160 lbs. each of butter in a season; and another† where with high feeding five cows have produced 208 lbs. in a season to a cow.

We may likewise refer to the Salem Alms House farm, as an example of successful husbandry, which for the size of the farm, we believe is not surpassed in the country. We admit that they have every advantage both of labor and manure; but it is honorable so successfully to avail themselves of these advantages. We here subjoin an account of the last year's produce, (1829) which, as we have received it from the clerk of the establishment, may be entirely relied on; "the same being as near the quantity produced as can be ascertained, without actual weighing and measuring."

75 tons	English hay,
3 "	salt hay,
600 bushels	corn,
4000 "	potatoes,
200 "	barley,
500 "	turnips,
200 "	beets,
600 "	onions,
100 "	carrots,
50 "	pease in pod,
30 "	beans do.
10 tons	squashes,
10 "	pumpkins,
300 dozen	cabbages,
200 lbs.	sweet marjorum,
300 "	sage,
200 "	balm and other herbs,
40 "	garden seeds, various sorts,
50 bushels	cucumbers,
3 tons	melons,

\* Of Jesse Curtis of Marblehead. See Report on the Dairy for this year.

† Of Jesse Putnam of Danvers. See Report of Essex Agricultural Society for 1826.



100 bushels radishes,	
Broom corn for 12 dozen brooms,	
500 roots celery,	
300 fowls,	
11600 lbs. pork,	
10 calves,	
200 cords manure,	
Apples, plums, peaches, cherries, &c. but few—say 10	
bushels,	
Stock kept on the farm,—	
Oxen, average number	10
Cows       “       “	10
Horses     -     -     -     -     -     -	2
Bull       -       -       -       -       -	1
Hogs of all ages,	80
35 acres of ground were cultivated,	
50   “       “       “       mowed.	

This farm contains now probably about 110 acres, several of which being ledge, are incapable of cultivation.

These statements are honorable to the County; and if, any person would see what judgment, industry, and perseverance can effect under almost every disadvantage, let them visit the farm of Ichabod Nichols, Esq. on the Salem Turnpike, a place so aptly denominated by a traveller “the abomination of desolation;” where, in the midst of rocks and bogs, upon which a man must have had the courage of a hero to look with the thoughts of subduing them, we find productive meadows, and well cultivated fields; and a milk establishment of upwards of thirty cows, alike creditable to the perseverance and productive to the pocket of its indefatigable proprietor.

The farms in the County can none of them be called large; and many of them have been subdivided to an injurious extent. If a man has a large family of children to establish, and wishes to form them to the honorable and industrious habits of an agricultural life, we advise him to emigrate into those new countries, where land is fertile and cheap; and he can form a sort of patriarchal colony around him. The homestead with us is too small to admit of farther division. If he wishes to engage largely in the raising of Live Stock, or in the cultivation of Hemp, he is promised, in the fertile alluvions of the Western States, advantages, which are not to be

found here. But if, on the other hand, it is his main object to obtain a comfortable support, and, for a man of moderate desires, a decent independence, what is an inhabitant of Essex County to gain by emigrations. To say nothing of the expenses of removal and the numerous privations and hardships incident to a settlement in a new country; in point of pecuniary profit we believe that the advantage is on our side. If on the banks of the Ohio he may obtain eighty bushels of Indian corn to an acre, we may easily produce fifty. The eighty bushels, if he is so fortunate as to find a market, may bring him twenty cents per bushel, equal to sixteen dollars per acre. His fifty bushels here will ordinarily bring him seventy cents per bushel, which is thirty five dollars. Labor is nearly as dear in Ohio as it is here, though without doubt the lands are of much easier tillage. One great difference is in the expense and trouble of manuring our lands, for which there will be more than an equivalent in the increased value of the crop. Let the farmers of Essex then, according to the French proverb, "if they stand well, stand still"; and instead of complaining of the hardships of the times and the small profits of farming, let them make the best use of the means of comfort and of bettering their condition, which they possess; and look considerably on the peculiar blessings of that improved state of society in which they live, instead of being dazzled by the bright visions of more fertile soils, and abundant products without labor, which have deluded so many to their ruin.

It must be admitted that the farmers of Essex County have singular advantages from their proximity to good markets. Their produce they can easily sell for cash. Haverhill, Andover, Lowell, Amesbury, Newburyport, Salem, Marblehead, Lynn, and Boston, furnish opportunities for the disposal of our produce at as good prices as are to be obtained in any part of the country. With all this however the agriculture of Essex County is not in an improved condition. Very little is accomplished compared with what may be done. We shall refer to some prominent defects or faults in our husbandry; and with a proper respect for the judgment of those more competent than ourselves to treat this subject, we will hazard a few hints as matters of inquiry and reflection.

It must be admitted, in the first place, that there is a great want of system in our agricultural operations. Few farmers lay down any regular plan of cultivation or pursue any regular rotation of crops; but appear to be governed rather by accident, or caprice, or



hereditary custom, than by any well matured plan having in view the gradual and permanent improvement of the whole farm. We know instances in which Indian Corn has been planted in the same spot upwards of ten years in succession and potatoes nearly as long. The consequences are the gradual impoverishment of the soil, diminished crops, and the neglect of other and valuable parts of the farm, which are doomed to the product of a sour or scanty herbage or to perpetual barrenness and neglect. It does not now remain to be proved that good husbandry requires a change and alteration of crops ;\* that crops of the same kind on the same land should not immediately succeed each other ; that it is a wasteful husbandry, which year after year spends the manure of the farm on the same pieces of land to the neglect of other parts of the farm ; and that a skilful farmer will aim by a regular course and in succession to go over the whole of his farm, which is capable of being subjected to the plough, and bring it all both arable and pasture into as good a condition as he can. The intelligent husbandman should look at his whole farm to decide what should be done ; determine the quantity to be cultivated by the amount of labor and manure, which he can apply to it ; and then arrange his rotation of crops so as to take up one part after another in succession, that in the end the whole shall be brought under a regular and systematic course of improvement.

We shall speak next of our improvident or unskilful management of manure. Manure is essential to successful husbandry ; yet in few instances is half the amount made, which with little trouble might be made. Of what is made a large portion is wasted by exposure to the sun and rains.—We shall say nothing of the advantages of barn cellars and vaults because they are deemed expensive. But we will suggest a few simple rules, which every farmer may observe. Litter your stock with whatever of coarse fodder or refuse hay or leaves you can procure, for their comfort and your interest. The best farmer that Switzerland ever produced (Kliyogg) took care that his cattle should stand knee deep in litter.—Fill your pig styes and barn yards with litter, or mud, or loam drawn from the sides of the roads, or wherever it can be taken without injury to the

\* “ For more than half a century the rotation system has formed the true test of agricultural improvement in every variety of soil and climate. Whenever it has been adopted the art is found in a state of prosperous progression ; whenever neglected or rejected it is either stationary or retrograde.” *Treatise on Agriculture*, p. 81.



farm. Confine your cattle as much as possible when at home to your barn yard; and never suffer them to be in the roads; or to waste their manure at their watering places. In the morning throw the droppings of every night into a heap and cover it with a light coat of soil. It is a better plan to house your cattle every night as much in summer as in winter, unless the weather is extremely hot. In general, if the barn is well ventilated they will be as comfortable in doors as out, and in this way your manure heap will be greatly increased. Take care of the contents of your privy, and save the refuse of your sink by throwing it upon a compost heap, or making the deposite where it can easily be removed. The privy and sink on many farms are most offensive places, and are sometimes so situated that they compel one to think that their owners have scarcely made an approach to a state of civilization.\* We should copy the extreme carefulness in this respect of the Chinese and the Flemish farmers, who suffer nothing to be lost. A good farmer should look upon manure of every description as money, which he may place at once at compound interest, and the payment of which is sure. There is no provision of nature, which is adapted more to strike the reflecting mind with grateful astonishment, than that by which the most offensive substances, instead of remaining to pollute the air and destroy the health and comfort of man, are converted into the means of fertilizing the earth and return to bless him in all the varied forms of beauty and utility, in flowers and fruits and the more substantial products of esculent vegetables and grain. Manures decidedly improve each other by being mixed in compost rather than applied singly. For almost all crops they are of much greater value applied green than kept over the year;† and where a farmer cannot form a cellar under his stables, he will find his account in erecting a cheap and rough shed over his manure heap to preserve it from the wind and sun and drenching rains. The expense of it when attached to the barn need not be great, and will be much more than compensated by the advantages gained by it.

\* We trust we shall be excused the plainness of these hints, but they concern health, comfort, and interest. A vault walled with stone is to be preferred, but if you have not this, place under the necessary a wooden box with or without a bottom, about two and a half feet deep, and let it extend three or four feet behind the building, having a close but moveable cover; and then having a load or two of loam placed near, by throwing a few shovels full in every two or three days, you will effectually prevent the place from being offensive both within and without; and the contents may be easily removed at any time to the compost heap without disgust or inconvenience.

† See note A. at the end.

We speak next of the winter keeping of our Stock. Though there are numerous honorable exceptions, our cattle do little credit to their owners; and when spring arrives it often happens that our cows, and young stock especially, are lean, dirty, and hide-bound, and indicate pretty strongly the neglect and hardness of their masters. In many cases, if the farmer can get them through the winter alive upon salt or fresh meadow hay, he congratulates himself on having performed his duty and saved his money. But it is a false economy, and the farmer as well as his cattle are sufferers by such neglect and hard usage. We do not require of the farmer to give much English hay to his cattle, excepting to his milch cows in the spring, because it is too expensive a feed; and it is in general the principal article of produce upon which he depends for the payment of his labor and the pecuniary wants of his family. His meadow hay should be well cured and salted; at least half a bushel of salt to a load. His corn fodder, both top and bottom stalks, should be cured and saved with as much care as his English hay. So too with his barley, rye, and wheat straw. He should lay in a quantity of salt hay if his situation admits of it. To these he should by all means add a plentiful supply of vegetables; mangold wurtzel, Swedish turnips, carrots, or potatoes. The three former, when planted on ridges formed by turning a back furrow, the manure being deposited under the ridge, being once thinned carefully and afterwards cultivated by a plough or drill harrow, may be raised, taking into the account the cost of twenty-five bushels of seed potatoes to an acre, at as little expense as potatoes; and with cultivation, which will give 200 bushels of potatoes, you may ordinarily calculate upon 500 bushels of carrots, Swedish turnips, or mangold wurtzel.

An acre of carrots yielding six hundred bushels, and nine hundred have been obtained in this County, allowing to a horse three pecks per day, in which case he would require no grain and very little hay, which might be coarse hay, would be equal to the keeping of a horse for a term of two years; but as horses are ordinarily kept besides the grain which they require, a horse to be kept in good condition would need for a year more than four tons of good hay or more than eight tons for two years; now allowing one ton and one quarter of hay to an acre, which may be considered as a fair average, the produce of an acre of carrots, as far as and while it can be applied to the feeding of a horse, is equal to more than six acres of land in hay. The manure made from succulent vegetables is



doubtless preferable to that from coarse dry food ; the health of the animals fed upon them is much better.

Swedish turnips are easily raised and are a valuable food for cattle. One of the most eminent farmers and breeders\* in England, at a public meeting in November last, declared that after several years experience he deemed them for feeding stock superior to every other species of vegetable. Mangold Wurtzel is a more precarious crop ; it does not keep so late, and is much more likely to be injured by early frosts. It is said likewise, and some instances within our own observation seem to favor the belief, that where it is given abundantly to milch cows, while it increases the quantity of milk, it tends to reduce their flesh. We have found the Swedish Turnips a nutritious and excellent root for neat cattle and sheep. Swedish turnips have been kept perfectly free from frost, even during this inclement winter, by being placed in a vacant mow and secured top and sides and bottom with a thick covering and flooring of refuse salt hay. Another advantage of this root is that it may be kept in a sound state until June. Jesse Buel, Esq. of Albany,† has raised good crops for several years by planting them on land from which the same year he had taken a crop of grass. Good crops of nearly four hundred bushels to the acre have been obtained in this County, on land broken up after mowing and planted the 18th of July. The fall however in this case was unusually favorable ; and the crop would doubtless have been better, if the planting had been earlier.

We will not quit this part of our subject, without calling the attention of farmers to the value of boiled carrots as food for swine. By several accurately conducted experiments, for which he received the Agricultural Society's gold medal, Arthur Young, the distinguished English farmer, demonstrated that boiled carrots as food for rearing and fattening swine were greatly superior to boiled potatoes. If then, as we have grounds to believe from repeated experiments, 500 bushels of carrots can be raised at as little expense as 200 of potatoes, the farmer will find no difficulty in making an inference most important to his interests. We have a detailed account of these several experiments in relation to boiled carrots, but have no room for their insertion.

We remark in the next place upon a practice too common among

\* The Rev. Henry Berry, British Farmer's Magazine, Nov. 1829. p. 481.

† See Note B at the end.

our farmers, and prejudicial to their interests ;—we mean the practice of permitting our teams so often to lie idle. It has grown into a proverb with the English farmers, that if a farmer does not keep the plough going he will fail. To every single or double team in English farming a ploughman or driver is attached, whose sole business it is to take care of his horses and keep them always at work. In general, on farms where labor is hired, if the farmer can afford to keep a team he can afford to keep a teamster, who should be constantly employed with that team ; he should no more consent to let his team lay idle day after day, than to let his hired men lay idle day after day. We should therefore plough much much more land than we do ; and when the team is not otherwise occupied it should at least be employed in procuring and carting to the compost heap materials for manure ; or in removing stones, or in carting gravel on to meadows, if that is deemed the best method of reclaiming them ; or in other purposes, which the circumstances of the farmer may suggest. At any rate as a yoke of oxen or a horse cannot be kept but at very considerable expense, their labor should not be lost, where, as in most cases, it is possible to apply it. This can be best done by having a man, who shall be attached to a team, and whose business it shall be, except in cases of extraordinary demand for his labor in other services, to employ this team.

The gains of husbandry, even under the most successful cultivation, must be small, and in our system of farming must arise from small sales and small savings. But if the gains are small the risks are proportionably small ; and if there are none of the extraordinary and splendid accumulations there are none of the painful anxieties and the extreme risks of commercial life ; and men are secure from those habits of inordinate speculation in which if they do not, as is very common, in the end lose all their property they too often purchase success at the expense of all honor and principle. We have often heard it remarked by intelligent merchants in Boston, that of those engaged in trade from one cause or another more than three fourths become bankrupt or die insolvent. We have no doubt of this fact ; and it ought to restrain the anxiety and morbid ambition which prevails so generally among parents, to place their children in trade and to bring them up in the expensive habits of city life. A good farm well managed will yield a fair compensation for labor ; and there are no situations among us more truly independent than that of the man, who, to the advantages of a well managed farm, adds the profits of some handicraft trade, which gives



him employment in inclement weather ; and during the long vacation from agricultural labors, which winter brings with it. Two great drawbacks upon the farmer's prosperity have hitherto been the use of ardent spirit and the extravagant price of labor. The former evil, is vastly diminished ; and we believe that more than one half of the farms in this County will this year be managed without the use of a drop of ardent spirit ; in truth, it is becoming quite disreputable to use it, and no custom can stand long against public opinion, when it is once thoroughly set against it. The price of labor is still inordinate, but this must come down. The price of labor ought to be regulated by the price of bread and clothing. Formerly wages were considered ample when a man could earn a bushel of corn or grain in two days ; now he can often obtain two bushels in one day ; formerly the laborer was well paid if he could earn the cloth for a shirt in three days, and now he can obtain the cloth for three shirts by the labor of one day. The price of all mechanical labor, of which the farmer must sometimes avail himself, is most exorbitant, such as that of the carpenter, the wheelwright, the blacksmith, the mason. The blacksmith charges you a dollar and a quarter or a dollar and a half for shoeing your horse, and two dollars or more for shoeing your oxen. The materials of iron and coal for the horse cost about thirty four cents, and for the oxen not twice as much, and the time employed does not exceed two hours for each animal. Other articles of the labor are equally dear. The mason charges you two dollars and sometimes two dollars and a quarter per day ; that is, in a trade in which there is no mystery, for labor which is not harder than common farm labor, and where the tools cost almost nothing, he must receive enough per day to purchase more than four bushels of corn, or nine bushels of potatoes, and more than twenty yards of good cotton cloth for sheeting or shirting. We begrudge no man his honest gains ; but while every effort is made to grind down the farmer to the lowest possible price for his products, we can but hope that the time will come when the price, which he himself is obliged to pay for labor, will bear a juster relation to the compensation which the community is willing to make him for his own. These, as we observed, are great draw-backs upon the farmer's success ; they compel a prudent man to forego many improvements which he would otherwise make, and to husband his resources with an extreme frugality.

We inquire in the last place to what sources may a farmer look for a remuneration of his labor. The farms in the County, as we

have remarked, are small; the system pursued therefore must be adapted to this fact. The raising of stock, either neat cattle or horses or sheep, must be left to those parts of the country, where land is cheap, pasturage abundant, and hay finds no market. It is not certain however that cattle may not be fattened here to advantage, or as the butchers term it topped off or finished; that is, purchased in the autumn in good condition and sold improved in the spring; and the increase of weight and of price be a fair equivalent for the cost of provision. This will be finding the best home market for our farm produce, and the valuable manure obtained will be more than a compensation for the attendance. There is nothing so much against this system as the great profits or commissions of the butchers. The experiments of several farmers in this matter in a small way have been such as to favor rather than to discourage further trials; although the extraordinary depression in the Brighton market the last year has occasioned a serious loss to some extensive feeders in the interior.

The Essex farmer must make two inquiries for himself. The first what can he produce on his farm for the necessary consumption and support of his own family? The farming produce, which goes without waste to this account, is always disposed of to the best profit. Here by the way let us ask what is the reason that throughout the country there is not one farmer in ten, perhaps in forty, who has any thing like a good kitchen garden; the principal labor of which might be done by his own children, or domestics, and which would contribute greatly to the support, the health and the luxury of his household, by a bountiful supply of early and various vegetables and fruits. Under this head too we will suggest only one rule, which is, that he should as much as possible rely upon the produce of his farm for his support, that is live as far as possible upon its products—A good farm may be made to yield a plenty of meat, milk, butter, cheese, poultry, eggs, bread, vegetables, cider, fruit, honey, and wool;—and when a man can have all these in abundance, need he complain of want; and will he not be as comfortable and his children as healthy to be fed upon good bread and milk as upon tea, coffee, and sugar, which are such a drain upon our earnings; and ought he not to beware, above all, of the consuming moth of a butcher's bill, who must furnish over overloaded tables with meat at least three times a day; and the expense of foreign and superfine flour, instead of the substantial brown wheaten loaf or Indian bannock, with which our fathers were satisfied.



The next inquiry, which the Essex farmer should make, is what can he raise to sell?

Hay is one of the first articles, and will yield ordinarily a fair profit. We have this advantage, that there is not a town in the county, which may not find a market for its hay. The Ipswich farmers have for years found a profit in transporting vast quantities to Boston market by land in spite of the competition of the neighboring towns, and the screwed hay from Maine.

Fruit is another article for which a ready market is generally found. The produce of the orchard of one farm in West Newbury\* has been equal for several years, before the two last, when the owner is suffering from the canker worm, to six or eight hundred dollars per year.

Indian Corn is the next crop which should claim the farmer's attention. This crop is the greatest blessing that ever was bestowed upon any country. It is not a more exhausting crop than potatoes or any other crop, as may be ascertained from the result on those places where it has been raised for years in succession on the same ground, with tolerable success. The cost of the seed is a mere trifle. The labor of cultivation will be greatly lessened when we learn to use the horse plough and the drill harrow more and the hoe less, and renounce the old and useless systems of hilling and half hilling—The best product has been obtained by planting it in drills from north to south, that it may have the full benefit of the sun. A successful trial, we are told, has been made the last year at the Alms House, in Haverhill, of cultivating it on a level surface without hilling at all, with a horse harrow, and not putting a hoe to it after the planting, the children of the establishment having been employed to weed among the plants. The produce of corn fodder from an acre for the feed of any neat stock, if well cured and chopped, is nearly equal to a ton of English hay. There is no crop which returns so much to the ground; potatoes return nothing where the crop is sold. The fodder from an acre of corn when the crop is good, in the opinion of Chancellor Livingston of New-York, will pay the labor of cultivation; and if the manure is furnished by the farm the grain may be considered as clear profit.

The Dairy should be the next object of an Essex farmer. All the butter and spare poultry which the County can produce may be sold as fast as it is made and reared in the several towns and villages

\* Statement of William Thurlow—Essex Reports for 1828—p. 29.

which are accessible to different parts of the County. These are articles therefore for which the farmer may command ready money. By the way however we greatly object, unless it is very near, to the farmer himself going once a week to the market\* where he is most likely to be tempted to waste a whole day and to incur needless expense. We recommend therefore that our farmers should do as is done in many parts of Worcester county, where some established market man goes once or twice a week to Boston and sells the produce of his neighbors in poultry, butter, eggs, &c. on a fair commission. The profits of a Dairy under the best management will not be great—but may be a fair compensation, especially if the cows are well fed in winter and succulent food is provided for them as it may easily be in summer, by the raising of corn sown for the purpose of cutting green and keeping up their milk, when the pastures fail.

The next object is the fattening of pork. We cannot in Essex County raise our pigs so cheaply as we can purchase them from New York and Vermont; but if we purchase them at a suitable age and of a good kind, why may they not be fattened here without loss and perhaps with a small gain? If there is no loss, the manure obtained and the consumption of the offal of the Dairy and farm is of great moment. We are aware that much must depend on the actual price of corn here, for on that we must mainly rely for fattening them; but this is always as low on the seaboard as it is one or two hundred miles in the interior. On this subject we do not presume to speak with confidence; but we propose it as matter of fair and accurate experiment to some of our intelligent farmers, feeling a strong persuasion, especially if boiled carrots are as beneficial as they are represented to be,† that the result will be favorable.

We shall speak of but one subject more, in which we call upon our female readers, should any such honor our remarks with a perusal, to aid in the labors of husbandry and to share likewise liberally in its profits.

The town of Mansfield, in Connecticut, produces annually, as appears by authentic statements, from forty to fifty thousand dollars worth of silk; almost the whole of which from the hatching of the worms to the reeling of the silk is the produce of female and children's labor. The expense of capital, required to begin an establishment on the Connecticut plan is, we are told, very small indeed.

\* See Note C.

† See Note D.



Is not Essex County as favorable as any part of Connecticut to the raising of silk ; and are not our wives and daughters as intelligent and as well disposed to be useful and industrious as any ? We throw out these hints on a subject, on which we do not profess to have any experimental knowledge, for their consideration.

We have extended these observations further than we had designed ; at the same time we have very cursorily glanced at many subjects, upon which we might refer to numerous facts, if we had the opportunity, in proof of our remarks. We address them to an intelligent and industrious community, in hopes that they may excite to inquiry and reflection with others. We look upon the cause of agriculture as essentially that of humanity, public happiness, good morals, and religion. Whatever serves to increase the means of subsistence and comfort concerns humanity. Whatever contributes to make the country more beautiful and more bountiful, promotes both individual and public happiness. Whatever leads men to be industrious and frugal, essentially concerns their morals. Whatever increases our attachment to our homes, and strengthens our domestic affections by making our homes comfortable and happy, must make us more sensible to God's goodness. More than this, Practical Agriculture must lead a man constantly more and more to study the works of nature and to contemplate with wonder and gratitude the miracles of divine providence, which are presented to his observation in the beautiful progress of the seasons and their appropriate and various products. "Nature is God's earliest revelation" and it is full of instruction. Our Saviour bade his disciples strengthen their faith in the protecting providence of God by looking at the birds of the air and the flowers of the field. The enlightened and reflecting farmer, in surveying the products of his labor, the various operations in which he is called to perform his part, and the brute animals, who gratefully acknowledge his care and look up to him as the almoner of the divine bounty to them, will find constant and powerful incitements to think of and to honor God, the great husbandman, whose rain enriches, whose sun warms the earth ; and who in his goodness has placed man in his vineyard that he may till and dress it.

## NOTES.

## NOTE A.

## MANURE.

For the application of manures see the quotations from Arthur Young's prize essay on manures, in *Memoirs of New York Board of Agriculture*, Vol. II. p. 264. He gives the authority of upwards of twenty most intelligent and experimental farmers, who are decidedly in favor of applying manure in a green or unrotted state to all crops, which admit of being hoed.

"With respect to laying on manure, says Mr. Wilkes, I have experienced that dung carried from the stable yard at not more than three days old, and laid directly on the land both in summer and winter (that is in England) has an advantage of twenty per cent over that dung, which is kept from nine to twelve months."

"It has become a pretty well settled principle among good farmers (says Jesse Buel, Esq. of Albany, one of the best farmers in the country) that we should never delay applying manure because it is unfermented or unrotted; but on the contrary that they are the most profitably applied before fermentation commences, or while it is in an incipient state."—*N. Y. Memoirs*, Vol. II. p. 229.

"Our eyes and nose, without the aid of chemistry, are sufficient to inform us, that farm yard manure loses one half, if it be kept twelve months; and in proportion if it be kept a shorter time, while the season favors decomposition."—*Lorain's Husbandry*, p. 100.

"Those parts of a field to which short dung was applied gave the best crops the *first* year, but those on which the long dung had been laid, gave the best crop the *second* and *third* years; a fact which authorises the conclusion that if we wish to obtain *one* great crop the rotted dung is best; but when we look to more permanent improvement the long dung is to be preferred."—*Armstrong's Treatise*, p. 65.

"It is a common practice amongst farmers to suffer the farm yard dung to ferment till the fibrous texture of the vegetable matter is entirely broken down, and till the manure becomes perfectly cold, and so soft as to be easily cut by the spade. There are many arguments and facts which show that it is prejudicial to the interests of the farmer.

"During the violent fermentation, which is necessary for reducing farm yard manure to the state in which it is called *short muck*, not only a large quantity of fluid but likewise a gaseous matter is lost; so much so that the dung is reduced one half or two thirds in weight; and the principal elastic matter disengaged, is carbonic acid with some ammonia, and both these if retained by the moisture in the soil are capable of becoming a useful nourishment for plants."—*Sir Humphrey Davy's Lectures*, p. 269.



"Within the last seven years Mr. Coke (perhaps the greatest farmer in the world) has entirely given up the system formerly adopted on his farm of applying fermented dung; and he informs me, that his crops have been since as good as they ever were, and that his manure goes nearly twice as far."—*Ibid.* p. 272.

## NOTE B.

### SWEDISH TURNIPS.

Mr. Buel's experiments are fully detailed in the *Memoirs of New York Agricultural Board*, Vol. II. p. 249, and Vol. III. 83. Those who know the character of this gentleman know how entirely his statements may be relied on. We subjoin an extract from his second communication.—Vol. III. p. 83.

"The second experiment was upon a lay, partly of lucerne, too thin to be worth preserving, and partly of clover. The first was cut twice for green food, and the latter once for hay. The ground having been manured was ploughed and harrowed, and the seed drilled in, at the distance of three feet between the rows, the 28th June. The crop was cleared, thinned, and hoed in the usual way; and the product was between five and six hundred bushels, or about sixteen tons on the acre.

"Encouraged by this success, I this year put in two and a half acres. Being short of pasture, I fed off the clover in June, instead of cutting it for hay; manured, ploughed, and harrowed the ground. A man was employed half a day in putting in the seed with a drill-harrow. The crop was between 1300 and 1400 bushels. Some of the roots weighed between 15 and 16 lbs. each. The tops nearly equal in bulk to an ordinary crop of grass were fed to my cows in November and December, with great benefit to their milk as well as flesh. The roots were pitted in the field."

## NOTE C.

### MARKETS.

"The weekly attendance on markets is a great loss to small farmers, whose individual labor in many instances is an object, but whose personal superintendence must always be material. When stated as a period of relaxation, I am always ready to make great allowances; but fifty-two idle days, or the sixth part of a year, is a sacrifice, a prudent man would hesitate about. It is probable that not one farmer in twenty is aware of the sacrifice.—*Curwen's Hints*, p. 245.

Let us state the account as nearly as we can rate it.

52 days at 50 cents,	- - - -	\$26 00
Loss of the work of a Horse, 50 cts. per day,		26 00
Expenses, tolls, &c.—40 cents per day,	-	\$20 80
		<hr/>
		\$72 80

## NOTE D.

*FEED FOR SWINE.*

From Arthur Young's Prize Essays on Rearing and Fattening Hogs.

## EXPERIMENT II.

" At the same time (March, 1765) with the preceding trial, four lots of pigs, that had been weaned three months, were equally drawn from my farm-yard, five in each lot. They were confined as before, each lot to a sty, and cleaned at the same time; their food was as follows:—

- No. 1. Bran (wheat) mixt with milk.
- 2. Boiled Potatoes.
- 3. Boiled Carrots.
- 4. Raw Carrots.

They were kept to this food thirty days, and then viewed them as before with the same person.

- No. 3. Much the best,—boiled carrots.
- 1. Next,—bran and skim milk.
- 2. Next,—boiled potatoes.
- 4. Worst,—raw carrots.

Boiled carrots appeared very clearly on this trial to be an admirable food for hogs of this age;—Boiled potatoes appear also a good food, &c.

## EXPERIMENT VI.

The month of December, 1766, twenty pigs, that had been weaned a month, were draughted into four parcels, and kept that month, separately in the following manner.

- No. 1. Boiled carrots.
- 2. Boiled potatoes.
- 3. Boiled turnips.
- 4. Boiled cabbages.

At the end of the month they were turned out and viewed attentively. The result was:—

- No. 1. The best,—boiled carrots.
- 2. Next,—boiled potatoes.
- 3. and 4. Equal,—all nearly dead.

Carrots continue in every trial superior to all common vegetable food. I am not at all surprised at the ill success of turnips and cabbages."

There are many other Experiments detailed, giving similar results, of which our limits forbid the insertion.



## EXTRACTS

*From Washington's Agricultural Notes—written in 1799.*

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“ It is the indispensable duty of him, who is employed to overlook and conduct the operations of a Farm, to take a prospective and comprehensive view of the whole business, which is laid before him, that the several parts thereof may be so ordered and arranged, as that one sort of work may follow another sort in proper succession, and without loss of labor or time; for nothing is a greater waste of the latter, and consequently of the former, (time producing labor, and labor money,) than shifting from one thing to another before it is finished, as if chance, or the impulse of the moment, not judgment and foresight, directed the measure. It will be acknowledged, that weather and other circumstances may at times interrupt a regular course of proceedings, but if a plan is well digested before hand, they cannot interfere long, with a man who is acquainted with the nature of the business, and the crop he is to attend to.”

“ Every attentive and discerning person, who has the whole business of the year laid before him, and is acquainted with the nature of the work, can be at no loss to lay it out to advantage. He will know, that there are many things which can be accomplished in winter as well as in summer; others, that spring, summer and autumn only are fit for; in a word, to use the wise man's saying, that “ there is a time and a season for all things,” and that unless they are embraced, nothing will thrive or go on smoothly. There are many sorts of *in-doors* work, which can be executed in hail, rain, or snow, as well as in sunshine; and if they are set about in fair weather, (unless there be a necessity for it,) there will be nothing to do in foul weather; the people therefore must be idle. The man of prudence and foresight will always keep these things in view and order his work accordingly, so as to suffer no waste of time, or idleness. These observations apply with equal force to frozen ground, and to ground too wet to work in, or which if worked will be injured thereby.”

“ Nothing but system and method are required to accomplish any reasonable requests.”

“ Economy in all things is as commendable in the manager, as it is beneficial and desirable to the employer. This manifests itself,

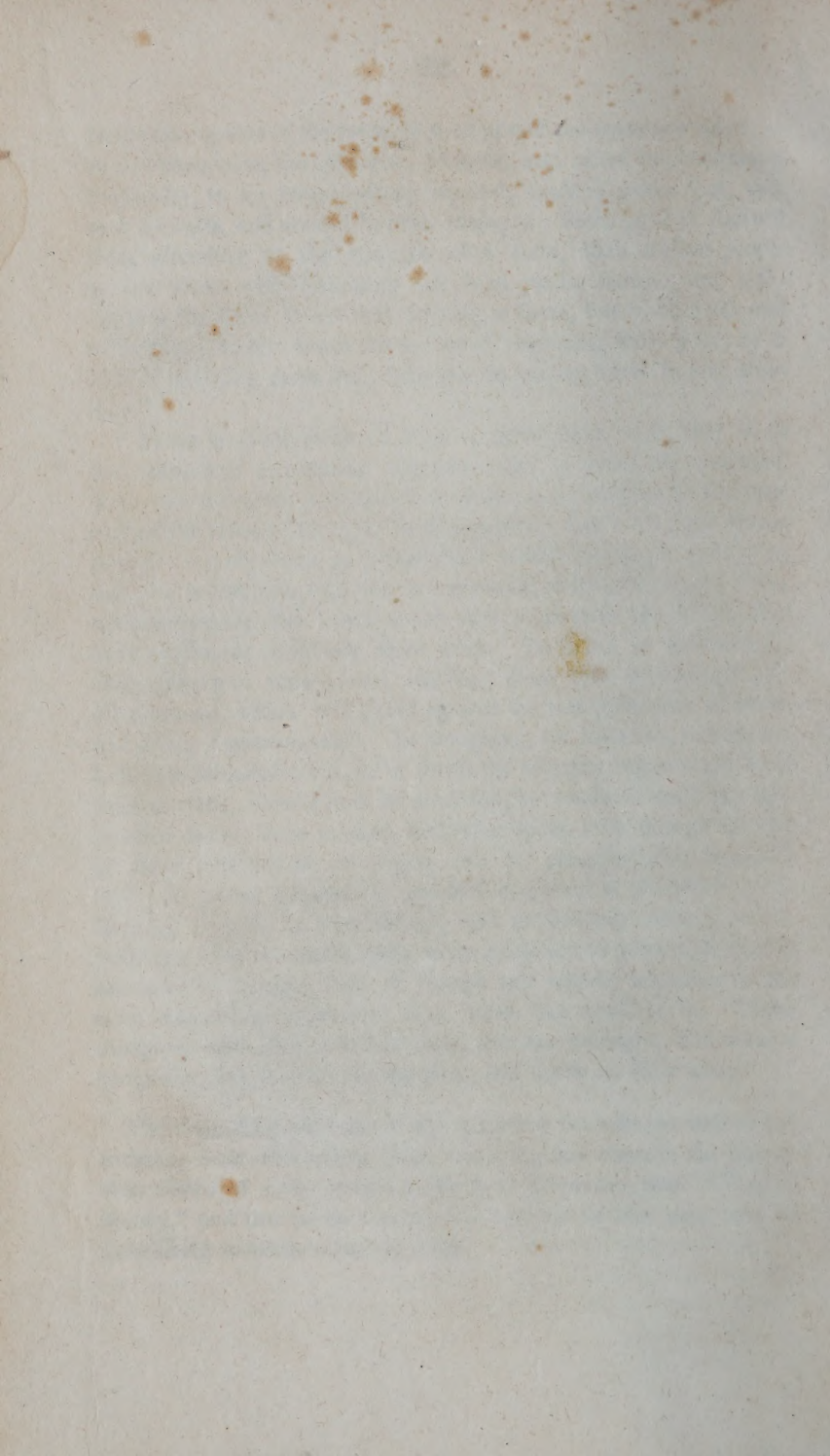
in the taking care of the crops, that no part of the same is wasted ;— in not permitting the ploughs, harness, and other implements of husbandry, to be unnecessarily exposed, trodden under foot, run over by carts, and abused in other respects. More good is derived from attending to the minutiae of a farm, than strikes people at first view ; and examining the farm yards, fences, and looking into the fields to see that nothing is there, but what is allowed to be there, is often times the means of producing more good, or at least of avoiding more evil, than can be accomplished in any other way."

" There is much more in what is called head work, that is, in the manner of conducting business, than is generally imagined. Take two managers, and give to each the same number of laborers, and let the laborers be equal in all respects. Let both these managers rise equally early, go equally late to rest, be equally active, sober, and industrious, and yet, in the course of the year, one of them, without pushing the hands under him more than the other, shall have performed infinitely more work. To what is this owing ? Why, simply to contrivance, resulting from that forethought and arrangement, which will guard against the misapplication of labor, and doing it unseasonably. In ploughing, for instance, though the field first intended for it, or in which the ploughs may actually have been at work, should from its situation, be rendered unfit (by rain or other cause) to be worked, and other spots, even though the call for them may not be so urgent, can be ploughed, this business ought to go on, because the general operation is promoted by it. So with respect to other things, and particularly carting, where nothing is more common, than, when loads are to go to a place, and others to be brought from it, though not equally necessary at the same moment, to make two trips, when one would serve. These things are only mentioned to show, that the manager, who takes a comprehensive view of this business, will throw no labor away."

The intrinsic good sense in the foregoing remarks, as well as the authority from which they come, will commend them to the favourable notice of every farmer, who is at all aware, that "Time is Money," and that he that makes the best use of the *one*, will be most likely to accumulate the *other*.









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